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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99) Application Number 08978634 Filing Date 1997-11-25 First Named Inventor Rabbani Art Unit 1635 Examiner Name D. Shin Attorney Docket Number Enz-53-D2

	U.S.PATENTS							
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear		
	1	6538107		2003-03-25	Hinuma			
	2	5827935		1998-10-27	Rossi			
	3	5821046		1998-10-13	Karn			
	4	5854038		1998-12-29	Sullenger			
	5	5734039		1998-03-31	Calabretta	·		
	6	5712384		1998-01-27	Symonds			
	7	5648243		1997-07-15	Hurwitz			
	8	5646032		1997-07-08	ter Meulen			



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9	5633152	1997-05-27	McKnight	
10	5610067	1997-03-11	Saito	
11	5604118	1997-02-18	Giri	
12	5591601	1997-01-07	Wagner	
13	5587308	1996-12-24	Carter	
14	5574142	1996-11-12	Meyer	
15	5547932	1996-08-20	Curiel	
16	5413999	1995-05-09	Vacca	
17	5128256	 1992-07-07	Huse	
18	4716112	1987-12-29	Panayotatos	
19	4795706	1989-01-03	Hsiung	



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Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Countr Code <sup>2</sup>		Kind Code <sup>4</sup>	Publication Date	Name of Patente Applicant of cited Document		Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T5
	1	WO9508635				1995-03-30	Craig			
	2	WO9506129				1995-03-02	Craig			
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	1 VERMA et al. "Gene therapy promises, problems and prospects" Nature 389: 239-242. 1997									
	FISHER "Neural precursor cells: applications for the study and repair of the central nervous system" Neurobiology of Disease 4: 1-22. 1997									
	3	DATTA et al. "Mitotic cr Saccaromyces cerevisia	ossovers ae" Mol.	betweer	diverge 16: 108	d sequences ar 5-1093. 1996	re regulated by mism	atch re	pair proteins in	



Application Number		08978634	
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Examiner Name	D. SI	hin	
Attorney Docket Numb	er	Enz-53-D2	

4	BENNET et al. "Pharmacology of antisense therapeutic agents" ch 2 in Methods in Molecular Medicine: Antisense Therapeutics Ed. S. Agrawal, Humana Press, Inc. Totowa, NJ 1996	
5	WANG et al., "Delivery of antisense oligodeoxyribonucleotides against the human epidermal growth factor receptor into cultured KB cells with liposomes conjugated to folate via polyethylene glycol" Proc. Natl. Acad. Sci. USA 92: 3318-3322. 1995	
6	THIMME et al., "Mx1 but not MxA confers resistance against tick-borne Dhori virus in mice" Virology 211: 296-301. 1995	
7	SUN et al. "Resistance to human immunodeficiency virus type 1 infection conferred by transdution of human peripheral blood lymphocytes with ribozyme, antisense, or polymeric trans-activation response element constructs" Proc. Natl. Acad. Sci. USA 92: 7272-7276. 1995	
8	ROSSI, "Controlled, targeted, intracellular expression of ribozymes: progress and problems" Trends Biotechnol. 13: 301-306. 1995	
9	RAMIREZ et al., "Transcriptional inhibition of the Parvovirus Minute virus of mice by constitutive expression of an antisense RNA targeted against the NS-1 transactivator protein" Virology 206: 57-68. 1995	
10	PARDRIDGE et al., "Vector-Mediated delivery of a polyamide ("peptide") nucleic acid analogue through the blood-brain barrier in vivo" Proc. Natl. Acad. Sci. USA 92: 5592-5596. 1995	
11	MILLER et al. "Targeted vectors for gene therapy" FASEB J. 9: 190-199. 1995	
12	LIMJOCO et al. " Resistance to retroviral infection in transgenic and bone marrow chimeric mice containg Fv4-env-expression hematopoletic cells" Virology 208: 75-83. 1995	
13	LAU et al. "Retroviral gene transfer into the intestinal epitheLAU et al. "Retroviral gene transfer into the intestinal epithelium" Hum Gene Ther. 6: 1145-1151. 1995	
14	BINKLEY et al. "RNA ligands to human nerve growth factor" Nucleic Acids Res. 23: 3198-3205. 1995	



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Examiner Name	D. Sh	nin	
Attorney Docket Numb	er	Enz-53-D2	

15	ALLY et al. "Prevention of autoimmune disease by retroviral-mediated gene therapy" J. Immunol. 155: 5404-5408. 1995	
16	AGRAWAL et al. "Absorption, tissue distribution and in vivo stability in rates of a hybrid antisense oligonucleotide following oral administration" Biochem. Pharmacol. 50: 571-576. 1995	
17	VIEILLARD et al. "Blocking of rteroviral infection at a step prior to reverse transcription in cells transformed to constitutively express interferon beta" Proc. Natl. Acad. Sci. USA 91: 2689-2693 1994	
18	LEWIN, in Genes V, pp 914-915. 1994	
19	JUNKER et al. "Reduction in replication of the human immunodeficiency virus type 1 in human T cell lines by polymerase III-drive transcription of chimeric tRNA-antisense RNA genes" Antisense Res. Dev. 4: 165-172. 1994	
20	DE YOUNG et al. "Functional characterization of ribozymes expressed using U1 and T7 vectors for the intracellular cleavage of ANF mRNA" Biochemistry 33: 12127-12138. 1994	
21	CROOKE "Progress in evaluation of the potential of antisense therapy" Antisense Res. and Development 4: 145-146. 1994	
22	VLASSOV et al., "Penetration of oligonucleotides into mouse organism through mucosa and skin" FEBS Lett. 327: 271-274. 1993	
23	COX et al. "Effect of resistance on combination chemotherapy for human immunodeficiency virus infection" Adv. Enzyme Regul. 33: 27-36. 1993	
24	BALVAY et al. "Pre-mRNA secondary structure and the regulation of splicing" BioEssays 15: 165-169. 1993	
25	ALLAWAY et al. "Synergistic inhibition of HIV-1 envelope-mediated cell fusion by CD4-based molecules in combination with antibodies to gp120 or gp41" AIDS Res. Human Retroviruses 9: 581-587. 1993	



Application Number		08978634
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Art Unit		1635
Examiner Name	D. Sr	hin
Attorney Docket Numb	er	Enz-53-D2

26	ZAIA et al., "Status of ribozyme and antisense-based developmental approaches for anti-HIV-1 therapy" Annals of the NY Acad Sci 660: 95-106. 1992	
27	IZANT "Chimeric Antisense RNAs" in Gene Regulation: Biology of Antisense RNA and DNA pp 183-195. Raven Press, Ltd. New York 1992	
28	DUMONTET et al. "[Chemotherapy for human immunodeficiency virus infection. Current status and perspectives]" La Revue de Medecine Intern. 13: 460-464. 1992.	
29	BURKLY et al., "Inhibition of HIV infection by a novel CD4 domain 2-specific monoclonal antibody. Dissecting the basis for its inhibitory effect on HIV-induced cell fusion" J. Immunol. 149: 1779-1787. 1992	
30	PILCH et al. "Expression of histone-U1 snRNA chimeric genes: U1 promoters are compatible with histone 3' end formation" Gene Expression 1: 41-53. 1991	
31	JOSHI et al., "Inhibition of human immunodeficiency virus type 1 multiplication by antisense and sense RNA expression" J. Virol. 65: 5524-5530. 1991	
32	FARUQI et al., "Replication-defective missense mutations within the terminal protein and spacer/intron regions of the polymerase gene of human hepatitis B virus" Virology 183: 764-768. 1991	
33	YAMASHITA et al. "Comparison of human lymphotoxin gene expression in CHO cells directed by genomic DNA or cDNA sequences" Agric. Biol. Chem. 54: 2801-2809. 1990	
34	FISCHER et al. "An essential signaling role for the m3G cap in the transport of U1 snRNP to the nucleus" Science 249: 786-790. 1990.	
35	YOSHIMATSU et al. "Control of gene expression by artificial introns in Saccharomyces cerevisiae"Science 244: 1346-1348. 1989	
36	VOS et al. "DNA interstrand cross-links promote chromosomal integration of a selected gene in human cells" Mol. Cell. Biol. 9: 2897-2905. 1989	



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Examiner Name	D. S	Shin	
Attorney Docket Numl	per	Enz-53-D2	

	37	GATERMANN et al. "Introduction of functional artificial introns into the naturally intronless ura4 gene of Schizosaccharomyces pombe"Mol. Cell Biol. 9: 1526-1535. 1989	
	38	NEUMAN DE VEGVAR "Initiation and termination of human U1 RNA transcription requires the concerted action of multiple flanking elements"Nucleic Acids Res. 17: 9305-9318. 1989	
	39	BEBENEK et al. "Specificity and mechanism of error-prone replication by human immunodeficiency virus-1 reverse transcriptase"J. Biol. Chem. 264: 16948-16956. 1989	
	40	REFERENCE INTENTIONALLY OMITTED FROM THIS SPACE	
	41	DAHLBERG et al. "The Genes and Transcription of the Major Small Nuclear RNAs" in Structure and Function of Major and Minor Small Nuclear Ribonucleoprotein Particles Birnstiel, ed. Springer Verlag, Heidelberg, pp 38-70. 1988	
	42	OLD et al. "Principles of Gene Manipulation" Blackwell Scientific Publications, London, 1986	
	43	DAVIS et al., "Basic Methods in Molecular Biology" Elsevier, NY 1986	
	44	PERBAL, "A Practical Guide to Molecular Cloning" John Wiley & Sons, New York, 1984	
	45	MANIATIS et al. Molecular Cloning, A Laboratory Manual, Cold Spring Harbor Laboratory Press, 1982	
	46	Definitions for "compound", "polymer", "monomer" on 2005-10-19 from www.cancerweb.ncl.ac.uk	
If you wis	sh to a	idd additional non-patent literature document citation information please click the Add button	



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